

# RULES CERTIFICATE

STATE OF WISCONSIN )  
 ) SS  
DEPT. OF INDUSTRY, )  
LABOR & HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carol Skornicka, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the annexed rule(s) relating to boilers and pressure vessels

(Subject)

were duly approved and adopted by this department on March 28, 1996  
(Date)

I further certify that said copy has been compared by me with the original on file in the department and that the same is a true copy thereof, and of the whole of such original.



IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at 4:00pm  
in the city of Madison, this 28th  
day of March A.D. 1996

Carol Skornicka  
Secretary

# ORDER OF ADOPTION

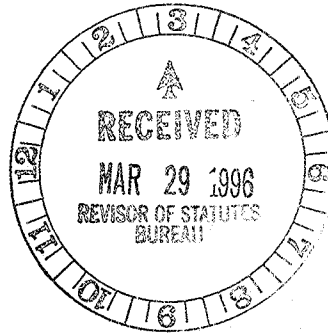
Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s)  
101.02 (1) and (15)(h) to (j) and 101.17

Stats., the Department of Industry, Labor and Human Relations  creates;  amends;  
 repeals and recreates;  repeals and adopts rules of Wisconsin Administrative Code chapter(s):

ILHR 41-42  
(Number)

Boiler and Pressure Vessel  
(Title)


The attached rules shall take effect on the first day of the month following publication in the  
Wisconsin Administrative Register pursuant to section 227.22, Stats.



Adopted at Madison, Wisconsin this

date: March 28, 1996

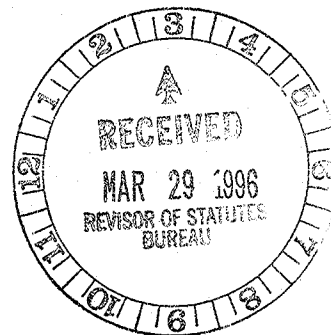
DEPARTMENT OF INDUSTRY, LABOR AND  
HUMAN RELATIONS

  
Secretary



State of Wisconsin \ Department of Industry, Labor and Human Relations

# RULES in FINAL DRAFT FORM



**Rule No.:**                     Chapters ILHR 41-42                    

**Relating to:**                     Boilers and Pressure Vessels                    

**Clearinghouse Rule No.:**                     95-231

The Wisconsin Department of Industry, Labor and Human Relations proposes an order to repeal ch. ILHR 41 subch. VI; to amend ILHR Table 41.10, ILHR 41.29 (2) (a), ILHR 41.31 (2), (3) and (4) (a), ILHR 41.33 (1) (a), ILHR 41.42 (1) and ILHR 41.49 (4) (a); to repeal and recreate ILHR 41.05 (1) Note, ILHR 41.49 (2) and (3) (a) and ILHR 41-42 Appendix A intro.; and to create ILHR 41.18 (3), ILHR 41.19 (3) Note, ILHR 41.24 (1) (b) Note and ILHR 41.30 (1) (c), relating to boilers and pressure vessels.

\* \* \* \* \*

Analysis of Proposed Rules

Statutory Authority: Sections 101.02 (1) and (15) (h) to (j) and 101.17, Stats.  
Statutes Interpreted: Section 101.17, Stats.

The Division of Safety and Buildings within the Department of Industry, Labor and Human Relations is responsible for adopting and enforcing administrative rules relative to the protection of the life, health, safety and welfare of employees and frequenters of public buildings and places of employment. The rules of chapters ILHR 41-42 contain safety and health requirements relating to the design, construction, installation, operation and inspection of boilers and pressure vessels.

The proposed rules consist of miscellaneous changes in chapters ILHR 41-42 in order to clarify intent and address new products and technology. The proposed rules contain clarifications relating to boiler blowoff piping and tanks. The rules relating to power boiler inspections are revised by allowing large power boilers to operate up to 24 months without receiving an internal inspection. A rule is being added for approval of boilers and pressure vessels designed to non-ASME standards and accepted by an independent third party. The rules relating to wood-burning boilers are revised by eliminating the plan submittal requirements and clarifying the installation requirements. A specific rule for the construction of electric boilers and the rules applying to boilers and pressure vessels installed before 1957 are being removed from chapter ILHR 41.

In order to keep the Wisconsin boiler and pressure vessel code up-to-date with national standards, the proposed rules include the incorporation by reference of the latest edition of the ASME Boiler and Pressure Vessel Code that is currently incorporated by reference in chapters ILHR 41-42. Approval of the Revisor of Statutes and the Attorney General to incorporate the updated ASME code has been received, in accordance with section 227.21, Wisconsin Statutes.

The department is also updating the informational material in the Appendix of chapters ILHR 41-42, but the proposed rules do not include those changes. In Appendix A, a sample copy of the certificate of operation is being added. In Appendix B, the excerpts from the ASME Boiler and Pressure Vessel Code are being updated to the 1995 edition.

\* \* \* \* \*

SECTION 1. ILHR 41.05 (1) Note 1 is repealed and recreated to read:

ILHR 41.05 (1) Note 1: The petition for variance application form (SBD-9890) is available from the Safety and Buildings Division, Customer Service Center, P.O. Box 7969, Madison, WI 53707, telephone 608/266-3151.

SECTION 2. ILHR Table 41.10 is amended to read:

TABLE 41.10

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ASME Boiler and Pressure Vessel Code  
1992 1995 edition

1. Section I Power Boilers
2. Section II Material Specifications
  - a. Part A - Ferrous Material
  - b. Part B - Nonferrous Material
  - c. Part C - Welding Rods, Electrodes and Filler Metals
  - d. Part D - Properties
3. Section III Nuclear Power Plant Components
  - a. Subsection NCA - General Requirements Division 1
  - a. Subsection NB - Class 1 Components
  - b. Subsection NC - Class 2 Components
  - c. Subsection ND - Class 3 Components
  - d. Subsection NE - Class MC Components
  - e. Subsection NF - Component Supports
  - f. Subsection NG - Core Support Structures
  - g. AppendicesDivision 2
  - a. Concrete Reactor Vessels and Containments
4. Section IV Heating Boilers
5. Section V Nondestructive Examination
6. Section VIII Pressure Vessels
  - a. Division 1 - Pressure Vessels
  - b. Division 2 - Alternative Rules
7. Section IX Welding and Brazing Qualifications
8. Section X Fiber-Reinforced Plastic Pressure Vessels
9. Section XI ~~Rules for~~ Inservice Inspection of Nuclear Power Plant Components

ANSI/ASME Standards

10. Power Piping, ANSI/ASME B31.1 - 1992 edition
-

SECTION 3. ILHR 41.18 (3) is created to read:

ILHR 41.18 (3) EXEMPTED POWER BOILERS. A power boiler, excluding a chemical recovery boiler, with a rated steam output capacity of 100,000 pounds per hour or greater may be exempted from internal inspection each 12 months, but not to exceed 24 months, provided all the following conditions are met:

- (a) A documented boiler maintenance program is available.
- (b) A documented boiler water treatment program is available.
- (c) The inspection agency of record has verified in writing to the department that the maintenance and treatment programs are adequate for the boiler.
- (d) If the internal inspection is completed during the 12 to 24 month period, the boiler shall be subjected to an external inspection at 12 months.

SECTION 4. ILHR 41.19 (3) Note is created to read:

ILHR 41.19 (3) Note: Confined space rules are contained in ch. ILHR 32 for public sector employes and in section 29 CFR 1910.146 of the federal Occupational Safety and Health Administration for private sector employes.

SECTION 5. ILHR 41.24 (1) (b) Note is created to read:

ILHR 41.24 (1) (b) Note: See Appendix A for a copy of the certificate of operation.

(NOTE TO REVISOR: A sample certificate of operation form will be added in Appendix A.)

SECTION 6. ILHR 41.29 (2) (a) is amended to read:

ILHR 41.29 (2) (a) Pressure controls. Each automatically-fired steam boiler or system of commonly connected steam boilers shall have at least one steam pressure control device that will shut off the fuel supply to each boiler or system of commonly connected boilers when the steam pressure reaches a preset maximum operating pressure. In addition to the operating pressure control, each individual automatically-fired steam boiler shall have a high steam pressure limit control that will prevent generation of steam pressure in excess of the maximum allowable working pressure. Each limit control and operating control shall be clearly separated, and have its own sensing element and operating switch. No shut-off valve of any type may be placed in the steam pressure connection between the boiler and the high pressure limit control device.

SECTION 7. ILHR 41.30 (1) (c) is created to read:

ILHR 41.30 (1) (c) Boilers which are manually fired and have a residual heat source shall have a fusible plug installed which will extinguish the fire in the event of low water.

SECTION 8. ILHR 41.31 (2), (3) and (4) (a) are amended to read:

ILHR 41.31 (2) PIPING AND FITTINGS. The blowoff piping and fittings between the boiler and the blowoff tank shall comply with ~~s. ILHR 41.42~~ the ANSI standard listed in Table 41.10 or the code in effect at the time of construction.

(3) (Title) TANKS AND SEPARATORS. The blowoff tank or separator shall be designed in accordance with s. ILHR 41.42 or the code in effect at the time of construction for a ~~working pressure of at least one-fourth the~~ maximum allowable working pressure of ~~the boiler to which it is connected at~~ least 50 psig.

(4) (a) A pressure gage graduated from ~~0-25~~ 0-50 psi;

SECTION 9. ILHR 41.33 (1) (a) is amended to read:

ILHR 41.33 (1) (a) The critical flow capacity data supplied by the ~~safety reducing~~ valve manufacturer may be used in place of the above formula to select the required safety valve capacity. The capacity calculations shall be the largest obtainable by internal trim change of the ~~safety reducing~~ valve.

SECTION 10. ILHR 41.42 (1) is amended to read:

ILHR 41.42 (1) ASME CODE COMPLIANCE. Except as provided in ss. ILHR 41.43, 41.44 and 41.45, boilers and pressure vessels shall be constructed and installed in accordance with the ASME standards adopted under s. ILHR 41.10. ~~Electric boilers shall be constructed and installed in accordance with ASME section I or IV as applicable. Boilers and pressure vessels designed to other national or international standards may be approved if the design has been accepted by a nationally recognized independent third party.~~

SECTION 11. ILHR 41.49 (2) and (3) (a) are repealed and recreated to read:

ILHR 41.49 (2) INSTALLATION REGISTRATION. The installation of the boiler shall be registered with the department by the installer using form SBD-6314.

Note: See Appendix A for a copy of form SBD-6314.

(3) INSTALLATION. (a) The boiler shall be located away from other structures in accordance with the manufacturer's recommendation.

SECTION 12. ILHR 41.49 (4) (a) is amended to read:

ILHR 41.49 (4) INSPECTION. (a) The installation shall be inspected by the department for compliance with this section ~~and the approved plans~~ before the boiler is placed in operation.

SECTION 13. Ch. ILHR 41 Subch. VI - Pre-1957 Installations is repealed.

SECTION 14. ILHR 41-42 Appendix A intro. is repealed and recreated to read:

ILHR 41-42  
APPENDIX A

The material contained in this appendix is for informational purposes only. The SBD forms referred to in this code are available from the Division of Safety and Buildings, Customer Service Center, P.O. Box 7969, Madison, WI 53707, telephone 608/266-3151.

The NR-1 and R-1 forms referred to in this code are available from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229.

(NOTE TO REVISOR: An additional sample form, the Certificate of Operation, will be added in Appendix A. Several changes will be made in Appendix B in order to update that appendix material. The new material will be provided at adoption of the rules.)

(END)

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EFFECTIVE DATE

Pursuant to s. 227.22 (2) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

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Tommy G. Thompson  
Governor

Carol Skornicka  
Secretary



Mailing Address  
201 E. Washington Avenue  
Post Office Box 7946  
Madison, WI 53707-7946  
Telephone (608) 266-7552

## State of Wisconsin Department of Industry, Labor and Human Relations

March 28, 1996

Gary Poulson  
Assistant Revisor of Statutes  
Suite 800  
131 West Wilson Street  
Madison, Wisconsin 53703-3233

Douglas LaFollette  
Secretary of State  
10th Floor  
30 West Mifflin Street  
Madison, Wisconsin 53703

Dear Messrs. Poulson and LaFollette:

### TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO.: 95-231

RULE NO.: Chapters ILHR 41-42

RELATING TO: Boilers and Pressure Vessels

Pursuant to section 227.20, Stats., agencies are required to file a certified copy of every rule adopted by the agency with the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you:

1. Order of Adoption.
2. Rules Certificate Form.
3. Rules in Final Draft Form.

Pursuant to section 227.114, Stats., a summary of the final regulatory flexibility analysis is included for permanent rules. A fiscal estimate and fiscal estimate worksheet is included with an emergency rule.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Carol Skornicka".

Carol Skornicka  
Secretary

